



UNITED STATES PATENT AND TRADEMARK OFFICE

m-f

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,108	06/26/2003	Neal A. Downey	47320.0132	1107

25928 7590 09/25/2006

CHRISTOPHER J. KULISH, ESQ
HOLLAND & HART LLP
P. O. BOX 8749
DENVER, CO 80201-8749

EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2627

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,108

Applicant(s)

DOWNEY ET AL.

Examiner

Tianjie Chen

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Final Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 21-28, and 30-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimitri (US 5,818,723) in view of Papa et al (US 6,324,608), Van Fleet (US 5,440,637), and Nagai (US 6,532,652).

Claim 1: Dimitri shows a data cartridge library in Figs 1-5 including: a frame 120 (Fig. 1); a shelf system 22 (Column 3, lines 51-52), operatively attached to the frame, for supporting at least two data cartridge magazines 30 (Fig. 2; column 3, lines 62) and including at least one shelf, drive means 56 (Fig. 3; column 4, lines 18-19) that is operatively attached to the frame, which is inherently capable of receiving from a data cartridge transport device a data cartridge that contains a recording medium and capable during operation of transferring data between a recording medium located within a data cartridge and an environment that is exterior to the drive means; a magazine transport device 70 (Column 4, lines 48-50), operatively attached to the frame, for moving a data cartridge magazine, a cartridge transport device 54 (Column 4, lines 51-54), operatively attached to the frame, for moving a data cartridge between a data cartridge magazine and the drive means.

Dimitri's library inherits a power supply but does not particularly specify the power supply.

VanFleet shows data storage device including a power supply 58 (Fig. 2; column 3, line 55), operatively attached to the frame, for receiving AC power from an external environment and producing DC power in a form suitable for use by the drive means 54 (Fig. 2; column 3, line 54), and a conductor 60, operatively attached to the frame, for conveying DC power from the power supply to the drive means (Column 1, lines 49-58 and column 3, lines 53-65).

Papa et al shows a data cartridge library, wherein the conductors 421 operatively attached to the frame (Fig. 3C; column 5, lines 63-65), for conveying power from the power supply 105 to the CPU module 103 and wherein the conductor has a flat external surface and a second flat external surface that is substantially parallel to the first flat external surface.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply the power supply taught by VanFleet into Dimitri's device. The rationale is as follows: a power supply, which conveys AC power to DC power, is a must unit in a library. Dimitri does not show a power supply. VanFleet shows a power supply, which conveys AC power to DC power. One of ordinary skill in the art would have been motivated to apply the power supply taught by VanFleet into Dimitri's device for supplying power. Papa further teaches that his connector provides a method of removing and replacing the connection without powering down the connection (Column 2, lines 49-53). One of ordinary skill would have been motivated to apply Papa et al's connection for being able to replace the modules without stopping the operation.

Papa shows the conductor for conveying the power, but does not show the detailed structure of the conductor.

Nagai shows a conductor in Fig. 3 including both a first external surface (the surface above 12) and second external surface (the surface below 12) that each extend from a first end to a second end wherein the second flat external surface is parallel to the first external surface between which DC power is conveyed; the conductor further including at least a first tap 16 located between the first and second ends wherein the first tap provides electric access for the drive means to receive the DC power from the power supply conveyed along the conductor in at least one common path in a direction between the first and second ends.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Nagai's structure to Papa's conductor. The rationale is as follows: Papa shows a conductor but lacking a detailed structure. Nagai shows a conductor and teaches that this conductor is for flexible flat cable or a flexible print board, or other circuit (Column 1, lines 19-21) and can prevent displacement or offset of the connection terminals from the proper position (Column 2, lines 4-6). One of ordinary skill in the art would have been motivated to apply Nagai's structure for preventing displacement and offset.

Claims 21 -23, a power supply for supplying power to drive means inherently supplies sufficient power at 5 volts and 12 volts with ground connection to the drive means, therefore, inherently the flat connector includes at least a first electrical pathway corresponding to a first voltage and first ground and a second electrical pathway corresponding to a second voltage and second ground; the first voltage is 12 volts and the second voltage is 5 volts; and the first and second pathway can carry sufficient power to provide power to a plurality of drives.

Claim 24, Nagai shows in Fig. 3 that the first tap 16 is capable of electrically connecting with a first plug 17.

Claim 25, Nagai shows that a second tap that is located between the first and second end of the conductor and is capable of electrically connecting with a second plug.

Claim 26, inherently the power is provided to the drive means from the conductor when the first plug cooperates with a third plug linked with the drive means, which can corresponds to a ground connection.

Claim 27, In above constructed device, the conductor is for providing power exclusively to the drive means since all the units receiving the power in Dimitri 's device can be combined together and defined as drive means.

Claim 28, as described above, the first tap can provide the electrical access with the drive means, Dimitri shows that the drive means including a plurality of drives.

Claim 30, Papa et al shows in Fig. 5 that the conductor is associated with a drive bay each adapted to accommodate at least one drive; one of ordinary skill in the art would have been reasonably expecting that as the cable taught by Nagai is used in the device, the conductor would further include a second and third tap, wherein each of the taps is associated with a drive bay each adapted to accommodate at least one drive.

Claim 31, Nagai shows in Fig. 5 that the conductor further includes a connector 17 substantially disposed at the first end.

Claim 32, Nagai shows in Fig. 5 that the conductor further includes a connector 17 substantially disposed at the second end.

Art Unit: 2627

Claim 33, in above constructed device, the power supply is connected to the conductor at the first end.

Claim 34, the above constructed storage library including: a frame; a drive means for recording data; a power supply for providing power to at least the drive means; a fiat power conductor extending from a first end to a second end, the fiat conductor electrically connected to the power supply; at least a first tap located between the first and second ends wherein the tap is capable of providing electrical power from the power supply in at least one common path to the drive means via the fiat power conductor.

Claim 35, in above constructed device, the drive means is a disk drive.

Claim 36, in above constructed device, the fiat connector includes at least an electrical pathway for a first voltage and first ground and a second voltage and second ground.

Claim 37 in above constructed device, the first tap is capable of electrically connecting with a first plug.

Claim 38, in above constructed device, the disk drive connects with a plug connected to the first tap.

Claim 39, in above constructed device, the power conductor is fixedly disposed along the frame and wherein the power conductor provides a second tap and a third tap, each of the taps providing power to a corresponding drive bay, the drive bay capable of holding at least one drive.

Claim 40, the above constructed device includes: a plurality of drives for recording data; a power supply capable of providing power to the plurality of drives; a fiat power conductor for transmitting the power from the power supply to the drives

Art Unit: 2627

wherein the fiat power conductor extends in length between a first end and a second end wherein a cross-section of the fiat power conductor between the first and second ends is substantially rectangular, the fiat power conductor including: at least one common power line and ground to transmit the power, a plurality of taps located between the two ends wherein the drives are electrically connected to the fiat power conductor via the taps.

2. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dimitri (US 5,818,723) in view of papa et al (US 6,324,608), van Fleet (US 5,440,637), and Nagai (US 6,532,652) as applied to claim 1, further in view of Albrecht et al (US 6,545,865).

Dimitri does not specify the way of mounting the cable.

Albrecht et al shows a conductor 65 (Fig. 5) being is fixedly attached to a channel member 48 (Fig. 6) associated with the frame.

In Dimitri's device, there are several drives and the power is to be distributed to theses drives. One of ordinary skill in the art would have been searching a way for fixing the conductor and distributing the power to the drives. Albrecht et al shows a way for fixing the conductor and it is can be used for connecting various secondary conductors to it. One of ordinary skill in the art would have been motivated to apply the channel member taught by Albrecht et al for fixing the conductor and further for distributing the power to various units.

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

- Web Report shows that a standard drive power connector supplies 12V, 5V, and with ground connection to the drive, which supports the inherency recited in rejections.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

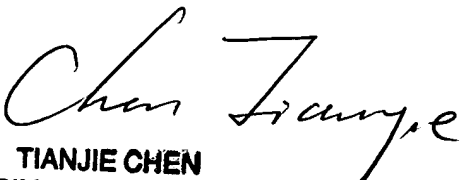
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


TIANJIE CHEN
PRIMARY EXAMINER